

Notice of Allowability

Application No.

10/776,790

Examiner

Sow-Fun Hon

Applicant(s)

TASAKA ET AL.

Art Unit

1772

[Handwritten signature]

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to interview dated 12/03/04.
2. ☒ The allowed claim(s) is/are 1,2 and 4-10.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 03/11/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 12/03/04
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Don Lucas on December 3, 2004.

The application has been amended as follows:

2. Cancel claim 3.
3. Substitute claim 1 with - - An optical compensation film comprising a cellulose ester film comprising cellulose ester wherein
 - (a) each of a photoelastic coefficient C (md) in a mechanical direction and a photoelastic coefficient C (td) in a transverse direction of the cellulose ester film is 1×10^{-9} to $1 \times 10^{-13} \text{ Pa}^{-1}$, and C (md) $< C$ (td);
 - (b) a retardation R_0 within a plane of the cellulose film defined by Formula (I) is 20 to 70 nm;
 - (c) a retardation R_t of the cellulose ester film in a thickness direction defined by Formula (II) is 70 to 400 nm;
 - (d) each of a dimensional variation ratio S (md) in the mechanical direction and a dimensional variation ratio S (td) in the transverse direction of the cellulose ester film prior to and after being allowed to stand at ambient conditions of 80 °C and 90 percent relative humidity for 50 hours are - 1 to 1 percent, and $| S(\text{md}) | > | S(\text{td}) |$; and

Art Unit: 1772

(e) the cellulose ester simultaneously satisfies Formulas (IV) and (V);

$$(I) R_0 = (n_x - n_y) \times d$$

$$(II) R_t = \{(n_x + n_y) / 2 - n_z\} \times d$$

wherein n_x is a refractive index in a transverse direction within a plane of the film, n_y is a refractive index in a mechanical direction within a plane of the film, n_z is a refractive index in a thickness direction of the film, and d is a thickness of the film in nm; and

$$(IV) 2.55 \leq X + Y \leq 2.85$$

$$(V) 1.4 \leq X \leq 2.85$$

wherein X is a degree of substitution of an acetyl group and Y is a degree of substitution of a propionyl group or a butyryl group. - -

4. Substitute claim 10 with - - A support for an optical compensation film comprising a cellulose ester film comprising cellulose ester wherein

(a) each of a photoelastic coefficient C (md) in a mechanical direction and a photoelastic coefficient C (td) in a transverse direction of the cellulose ester film is 1×10^{-9} to $1 \times 10^{-13} \text{ Pa}^{-1}$, and C (md) < C (td);

(b) a retardation R_0 within a plane of the cellulose film defined by Formula (I) is 20 to 70 nm;

(c) a retardation R_t of the cellulose ester film in a thickness direction defined by Formula (II) is 70 to 400 nm;

(d) each of a dimensional variation ratio S (md) in the mechanical direction and a

Art Unit: 1772

dimensional variation ratio $S(td)$ in the transverse direction of the cellulose ester film prior to and after being allowed to stand at ambient conditions of 80 °C and 90 percent relative humidity for 50 hours are - 1 to 1 percent, and $|S(md)| > |S(td)|$; and

(e) the cellulose ester simultaneously satisfies Formulas (IV) and (V);

$$(I) R_0 = (n_x - n_y) \times d$$

$$(II) R_t = \{(n_x + n_y) / 2 - n_z\} \times d$$

wherein n_x is a refractive index in a transverse direction within a plane of the film, n_y is a refractive index in a mechanical direction within a plane of the film, n_z is a refractive index in a thickness direction of the film, and d is a thickness of the film in nm; and

$$(IV) 2.55 \leq X + Y \leq 2.85$$

$$(V) 1.4 \leq X \leq 2.85$$

wherein X is a degree of substitution of an acetyl group and Y is a degree of substitution of a propionyl group or a butyryl group.- -

5. The following is an examiner's statement of reasons for allowance: The closest prior art of record, US 6,476,892, fails to teach that the cellulose ester film has a photoelastic coefficient $C(md)$ in a mechanical direction and a photoelastic coefficient $C(td)$ in a transverse direction of 1×10^{-9} to $1 \times 10^{-13} \text{ Pa}^{-1}$, wherein $C(md) < C(td)$; a dimensional variation ratio $S(md)$ in the mechanical direction and a dimensional variation ratio $S(td)$ in the transverse direction of -1 to 1 percent prior to and after being allowed to stand at ambient conditions of 80 °C and 90 percent relative humidity for 50 hours, wherein $|S(md)| > |S(td)|$; and simultaneously satisfies the formulae $2.55 \leq X + Y \leq 2.85$ and $1.4 \leq X \leq 2.85$ wherein X is a degree of substitution of an acetyl group and Y is a degree of substitution of a propionyl group or a butyryl group.

Art Unit: 1772

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication should be directed to Sow-Fun Hon whose telephone number is (571)272-1492. The examiner can normally be reached Monday to Friday from 10:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached at (571)272-1498. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S. Hon

Sow-Fun Hon

12/6/04

Harold Pyon
HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

12/7/04